

UMP E-SAMAN SYSTEM USING MOBILE

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SUPERVISOR'S DECLARATION

I hereby declare that I have checked this thesis and, in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Computer Science (Computer Systems & Networking) with Honours.

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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ABSTRAK

Sistem UMP E-Saman Aplikasi Mudah Alih merupakan sistem aplikasi mudah alih yang mengendalikan sistem saman di Univerisiti Malaysia Pahang (UMP). Pengguna kepada sistem ini merupakan Pegawai Keselamatan UMP. Mereka akan menggunakan sistem ini untuk mengeluarkan saman ke atas kakitangan dan pelajar yang melakukan kesalahan lalulintas. Sistem ini akan mengimbas kod QR pada pelekat kenderaan UMP. Kod QR tersebut telah mempunyai data iaitu nama pelajar/nama kakitangan, nombor kad matrik/ID kakitangan dan nombor plat kenderaan. Bagi mereka yang tidak mempunyai pelekat kenderaan, sistem ini akan menyediakan pengguna, ruang untuk memasukkan plat kenderaan dan jenis kesalahan lalulintas yang dilakukan. Oleh itu, semua data akan terus dimasukkan ke dalam sistem pangkalan data. Oleh kerana teknologi mudah alih semakin pesat berkembang. Diharap aplikasi ini boleh digunakan dengan baik kerana sistem ini sangat mudah dan sesuai untuk generasi akan datang.

ABSTRACT

UMP E-Saman System Using Mobile is mobile application system where it handles summon in the Universiti Malaysia Pahang (UMP). The user of this system will be UMP Security Officer. They will use this system to issuing the summons on staff and students that do traffic offence. This system will scan a QR code on the UMP vehicle sticker. The QR code itself will have data which is student name/staff name, matric number/Staff ID and car plate. For those who do not have vehicle sticker, the system will provide the user to key in the car plate and type of traffic offence. Hence, all the data will insert into a database system. Since the mobile technology is growing further. I think this application system will give a benefit towards the user which is UMP Security Officer. I hope this application can be used with satisfied as it is very convenience and suitable for upcoming generations.

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CHAPTER 1

INTRODUCTION

1.1 Overview

In this chapter, it covers six subtopics. Subtopic 1.2 will describe the background of this project. Subtopic 1.3 will discuss about a problem statement. Subtopic 1.4 will explain about goal and objectives of this project. Subtopic 1.5 will describe about the scope of the project in terms of target system, target user and function. Subtopic 1.6 will define about method that are used in methodology. Hence, subtopic 1.7 will discuss on report organization for this project.

1.2 Background

Nowadays, technology become a part of human life. Life has been made better and simpler with the existence of technology. As well as mobile technology that is used for cellular communication which is wireless such as smartphone or tablet computer. This era, we can assume almost every person have their own smartphone. Previously, smartphone was used to access email, pager and as a fax machine. But today, on 21st century smartphone can surf the web, snapping photos, updating social media status and most important can install an application which make a user have a better life.

Mobile technology gives many benefits which can access to modern mobile application and services that are made free for consumers as most of it are developed using open source software and operating system. It also provides the higher efficiency and productivity of employees where it is easy to manage and cost effectiveness to an organization. As a smartphone is example of mobile technology, it is a targeted influential device. It consists of the most advanced hardware and software technologies that exist in the world (Chung, 2018). It such a great impact in daily lives

This project focus on developing an application system for a mobile technology that is require mobility and simplicity to assist in daily activity. The tittle of this project is UMP E-Saman System Using Mobile. It focused on summons for any students or staffs who do a traffic mistake in Universiti Malaysia Pahang (UMP). The users of this system are UMP Security Officers which is from UMP Security Department. Before this, they have been using a manual way which is fill the summon form and give it to the offenders. Hence, this manual way might cause data loss, miss communication or the duplication of data.

Apart of that, this project provides a convenient and advance system. It will first scan a QR code from the UMP Sticker using smartphones or tablet computer. Next, the students or staff's data will be appeared in the screen system. UMP Security Officer just need to key in the type of traffic offence. As a submit button has been click, it will automatically insert the data into a database. The data that has been saved, can be used by the treasurer for tracking the offenders and make they pay their summons.

1.3 Problem Statement

UMP Security Department are responsible for managing all security aspects inside the Universiti Malaysia Pahang. Their scope of work is about Road Traffic Discipline and the registration sticker for students' motor vehicles. The main responsibility of their work is related in enforcing traffic law towards staffs and students. Thus, the related activity for traffic law enforcement is a traffic summons. Traffic summons is given by the security officer towards staff and students who failed to obey the road traffic discipline. The road traffic discipline is including the obstructive parking, use of allocated parking bays, unregistered vehicle, vehicle not displaying UMP sticker, students not bringing their driving license and student card, etc.

Currently, UMP Security Department is using the manual system for traffic summons. Security officer will issue the summons on a piece of paper provided and put it on a car windscreen as to alert the traffic offender. Sometimes, the summon paper might loss because of incidents or human mistakes. Recorded a traffic offence on a summon paper is inefficient ways that is perishable and less practical for data recording. Besides, the data need to be key in manually into the computer system by referring the summon paper. This current system is less systematic and less effective as the employee of security department has to do recheck process. It might take several hours to complete all of it.

In addition, the security officer sometimes will clamp the vehicles that use of allocated parking bays or obstructive parking. There is a real case in Universiti Malaysia Pahang, which two students use of allocated parking bays for the staff. One of the cars are clamped and summon are being issued by the security officer. But there is nothing action has been taken for the other student car. This case is not fair for them. Might be the number of clamps is insufficient for a thousand of cars in Universiti Malaysia Pahang. Instead of that, other alternative should be considered by the UMP Security Department where making their system easier and more comfortable.

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